2.4.8.2.17 **Verification of the Mode Status Report Version Number (subparagraph 2.2.8.2.17)**

Purpose/Introduction:

The ADS-B Report Assembly Function must provide "Version Number" (see 2.2.3.2.7.3.5) data, as received in the Aircraft Operational Status Messages (see 2.2.3.2.7.3), when available, in the Mode Status Report. Otherwise, the Version Number must be assumed to be ZERO.

Measurement Procedure:

Step 1:   Initialization

Be able to provide valid ADS-B Aircraft Operational Status Messages to the ADS-B receiving system, from ADS-B Transmitting Systems conforming to both RTCA Document DO-260 and RTCA Document DO-260A, such that the ADS-B Report Assembly Function enters the Track State (see subparagraph 2.2.10.4) and is outputting Mode Status Reports to the Report Buffer.

Step 2:   Verification of Version Number when Data is Not Available

Verify that the ADS-B Aircraft Operational Status Messages are being transmitted from a system conforming to RTCA Document DO-260. Receive the resulting Mode Status Report from the Report Buffer. Verify that the Version Number field (Report Byte 39 in the full Mode Status Report) is set to ALL ZEROs (binary 000).

Step 3:   Verification of Version Number

Provide a valid ADS-B Aircraft Operational Status Message to the ADS-B receiving system with the Version Number set as specified in Table A-21, from an ADS-B Transmitting System conformant to RTCA Document DO-260A. Retrieve the resulting Mode Status Report from the Report Buffer. Verify that the Version Number presence bit (Report Byte 2, bit 4) is set to ONE. Verify that the Version Number field (Report Byte 39 in the full Mode Status Report) is set to ONE (binary 001).

2.4.8.3 **Verification of the ADS-B TCP + 1 Report Characteristics (subparagraph 2.2.8.3)**

No specific test procedure is required to validate subparagraph 2.2.8.3.

2.4.8.3.1 **Verification of the TCP + 1 Report Type and Structure Identification and Validity Flags (subparagraph 2.2.8.3.1)**

Appropriate test procedures are provided in 2.4.8.3.1.1 and 2.4.8.3.1.2